REMARKS/ARGUMENTS

1. Claim Amendments

The Applicant has amended claims 1, 8 and 16. Applicant respectfully submits no new matter has been added. Accordingly, claims 1, 3-8 and 10-16 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2. Claim Objections

Claims 1-16 was objected to because of the following informalities: Regarding claims 1 and 8, the Examiner has requested the claims with the word "comprising" without a colon following be corrected. Applicant has corrected claims 1 and 8.

The remaining claims objected to because they depend directly or indirectly from the claims objected to above have overcome the objection as the independent claims have been amended from which the remaining claims depend.

3. Claim Rejections – 35 U.S.C. § 101

Claims 1-7 and 15-16 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claim 1, from which the remaining claims depend, has been amended to overcome the Section 101 rejection.

4. Claim Rejections – 35 U.S.C. § 103 (a)

Claims 8 and 11-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (US 20030100267 A1) in view of Mochizuki (US 20020082038 A1). Applicant has amended Claim 8 to better distinguish the present invention from Mochizuki. Claims 11-14 depend from amended Claim 8 and add further limitations to the novel elements of Claim 8.

Claims 1, 3-7 and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh and Mochizuki as applied to claims 1 and 8, and further in view of Dabak (US 6804311 81). Applicant has amended Claim 1 to better distinguish the present invention from Itoh, Mochizuki and Dabak. Claims 3-7 and 15 depend from amended Claim 1 and add further limitations to the novel elements of Claim 1.

Claims 1, 4-7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh, in view of Mochizuki, and further in view of Young-Shin Yoon, "Adaptive SIR estimation in WCDMA systems", IEEE 55th Vehicular Technology Conference, 2002, VTC Spring 2002. Volume 1, 6-9 May 2002 Page(s): 275 - 279 vol.1). Applicant has amended Claim 1 to better distinguish the present invention from Mochizuki and Young-Shin Yoon. Claim 4-7 and 15 depend from amended Claim 1 and add further limitations to the novel elements of Claim 1.

First note that the present invention is directed to estimating a signal to interference ratio (SIR). Once SIR is estimated, power up or power down decisions can be made. So, it becomes a question of how is the SIR estimated. The novelty of the present invention is that it first determines if a previous power up/power down (i.e., a TPC) command has been correctly received, then weighting the pilot and data symbols by taking into account a power change in said data symbols due to a prior TPC change.

The Examiner states:

> Regarding clam 1, Mochizuki uses the weights to take into account the quality of the channels to improve the performance of the system ("a weight W1 for the selected base station and changes weight W2, the weight set for non-selected base stations, from "0" to "1" in accordance with the quality of the uplink channel").

Applicant readily acknowledges that Mochizuki is performing weighting. This is of no consequence to the present invention. What is significant, and what Mochizuki and the secondary references fail to disclose or suggest is that in the SIR estimation, the data and the pilot symbols are given weights by taking into account a power change

in said data symbols due to a prior TPC change. The plain meaning of claim 1 and similarly for claim 8 is that if the TPC command is verified, then prior data symbols could also be used for SIR estimation.

The "weighting coefficients" disclosed by Mochizuki and Dabak are not determined by taking into account a power change in said data symbols due to a prior TPC change.

Regarding Mochizuki, it discloses:

> During soft handover, base station selector 22 selects the base station that is transmitting the downlink signal with the best downlink reception quality, and notifies the base stations of the ID of this base station, so as to cause only the selected base station to transmit user data. Downlink signal weight decision circuit 23 estimates base stations that have a likelihood of transmitting user data. Downlink TPC command decision circuit 25 uses the downlink signal from the base stations that have a likelihood of transmitting user data, to decide whether the transmission power of the base stations is excessive or insufficient, and to instruct the base stations to increase or decrease their transmission power. Data demodulator 27 uses the downlink signals from base stations that have a likelihood of transmitting user data to demodulate the user data.

Further, Mochizuki paragraphs [0150] and [0179] disclose:

> [0150] If reception quality for the uplink channel is ideal, the base stations increase or decrease their transmission power as instructed by the TPC command. However, the poorer the reception quality for the uplink channel is, the more the increase or decrease in transmission power diverges from that instructed by the TPC command. Consequently, the correlations indicated by signals S8, S9 and S10 indicate which of the base stations have correctly received the TPC command. In other words, these correlations show the estimated value of reception quality for the uplink channel (hereinafter called the estimated uplink reception quality).
>
> [0179] According to this embodiment, because downlink transmission power is controlled by means of the signal obtained by weighting and combining the downlink signals from base stations that have been estimated to have a likelihood of transmitting via the DPDCH, the transmission power of the DPDCH from each base station can be

more adequately controlled and interference with the downlink signal to other mobile terminals can be decreased.

Mochizuki fails to disclose the element of determining if the TPC command has been received correctly and weighting the pilot and data symbols based thereon. The weighting in Mochizuki is looking at giving different weights *dependent on the likelihood of each of the base stations sending user data or not.* (See claims 19-23, paragraph 171, in addition to paragraphs 179 and 186 as referenced by the Examiner). Mochizuki is communicating with several base stations in a soft handover set up, where the UE has contact with more than one base station at a cell border, before doing the actual handover to the new base station in the new cell.

Dabak is directed to detecting transmit diversity and is not directed to power control. Dabak appears directed to weighting the difference in fading due to different antennas (transmit diversity). Hence, it is not applicable to the transmit power control.

Young-Shin Yoon. fails to disclose the element of determining if the TPC command has been received correctly and weighting the pilot and data symbols based thereon. It is directed to a soft symbol reliability estimation for closed loop power control.

The Examiner's consideration of the amended claims is respectfully requested.

6. Prior Art Not Relied Upon

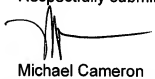
In the conclusion paragraph on page 7 of the Office Action, the Examiner stated that the prior art made of record and not relied upon is considered pertinent to the Applicant's disclosure. None of the cited references, alone or in combination, disclose or suggest the novel and non-obvious aspects of the present application as claimed.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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